

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**1. (Currently Amended)** A servo-assisted butterfly valve (1) for an internal combustion engine comprising:

a valve body (2),  
a valve seat (4) defined in the valve body (2),  
a butterfly body (5) adapted to engage the valve seat (4),  
a shaft (6) on which the butterfly body (5) is keyed and housed by the valve body (2),  
an electric actuator (3) coupled to the shaft (6) in order to rotate the butterfly body (5) between an open and a closed position of the valve seat (4),

an elastic body member (23) which is adapted to exert a torque on the shaft (6) which tends to rotate the butterfly body (5) towards a limp-home position

and an abutment body (29) which forms an abutment surface for an abutment member (28) of the elastic body (23) in order to stop, in the desired limp-home position, the rotation of the butterfly body (5) caused by the elastic body (23) in the absence of action by the electric actuator (3); wherein the abutment body (29) ~~comprising~~ comprises an eccentric member (35) which is adapted to rotate with respect to the valve body (2) with a predetermined eccentricity about an adjustment axis (31); ~~the butterfly valve (1) being characterized in that~~

wherein the elastic body (23) comprises a first spring (24) provided with a first projection (25) coupled mechanically to the shaft (6) and a second spring (26) provided with a projection (27) coupled mechanically to the valve body (2), the first and second springs (24, 26) being connected together by a curved member (28) which forms the abutment member (28).

**2. (Original)** A valve (1) as claimed in claim 1, in which the first front spring (24) tends to rotate the shaft (6) with a movement which tends to bring the butterfly body (5) into the closed position, and the second spring (26) tends to rotate the shaft (6) with a movement which tends to bring the butterfly body (5) into the open position, the first spring (24) generating an elastic torque lower than the elastic torque generated by the second spring (26).

3. **(Original)** A valve (1) as claimed in claims 1, in which the abutment body (29) comprises a cylindrical pin (30) which is mounted on the valve body (2) in order to rotate about an adjustment axis (31) and has a free front end (32) and a rear end (33) inserted in a blind housing hole (34) provided in the valve body (2).

4. **(Original)** A valve (1) as claimed in claim 3, in which the rear end (33) of the pin (30) has a smooth portion (37) whose diameter is substantially equal to the diameter of the housing hole (34) and a knurled portion (36) whose diameter is slightly greater than the diameter of the housing hole (34), only the smooth portion (37) of the rear end (33) of the pin (30) initially being inserted in the housing hole (34).

5. **(Original)** A valve (1) as claimed in claim 4, in which the knurled portion (36) of the rear end (33) of the pin (30) is adapted to be driven into the housing hole (34) in order to lock the angular position of the pin (30) with respect to the valve body (2).

6. **(Original)** A valve (1) as claimed in claims 3, in which the valve body (2) is shaped so as to enable the provision of the housing hole (34) in different positions in order to obtain different air flow values in the limp-home position.

7. **(New)** A servo-assisted butterfly valve (1) for an internal combustion engine comprising:

- a valve body (2),
- a valve seat (4) defined in the valve body (2),
- a butterfly body (5) adapted to engage the valve seat (4),
- a shaft (6) on which the butterfly body (5) is keyed and housed by the valve body (2),
- an electric actuator (3) coupled to the shaft (6) in order to rotate the butterfly body (5) between an open and a closed position of the valve seat (4),
- an elastic body (23) which is adapted to exert a torque on the shaft (6) which tends to rotate the butterfly body (5) towards a limp-home position and

an abutment body (29) which forms an abutment surface for an abutment member (28) of the elastic body (23) in order to stop, in the desired limp-home position, the rotation of the butterfly body (5) caused by the elastic body (23) in the absence of action by the electric actuator (3); wherein the abutment body (29) comprises an eccentric member (35), which is adapted to rotate with respect to the valve body (2) with a predetermined eccentricity about an adjustment axis (31), and a cylindrical pin (30), which is mounted on the valve body (2) in order to rotate about the adjustment axis (31) and has a free front end (32) and a rear end (33) inserted in a blind housing hole (34) provided in the valve body (2);

wherein the elastic body (23) comprises a first spring (24) provided with a first projection (25) coupled mechanically to the shaft (6) and a second spring (26) provided with a projection (27) coupled mechanically to the valve body (2), the first and second springs (24, 26) being connected together by a curved member (28) which forms the abutment member (28).

**8. (New)** A valve (1) as claimed in claim 7, in which the rear end (33) of the pin (30) has a smooth portion (37) whose diameter is substantially equal to the diameter of the housing hole (34) and a knurled portion (36) whose diameter is slightly greater than the diameter of the housing hole (34), only the smooth portion (37) of the rear end (33) of the pin (30) initially being inserted in the housing hole (34).

**9. (New)** A valve (1) as claimed in claim 8, in which the knurled portion (36) of the rear end (33) of the pin (30) is adapted to be driven into the housing hole (34) in order to lock the angular position of the pin (30) with respect to the valve body (2).

**10. (New)** A valve (1) as claimed in claim 7, in which the valve body (2) is shaped so as to enable the provision of the housing hole (34) in different positions in order to obtain different air flow values in the limp-home position.